Claims

A1

1. A device for automatically switching lighting devices in vehicles, having a sensor device (20) by which the light intensity in the surroundings of the vehicle is detected, wherein the sensor device (20) has at least one global sensor (22), by which the general light intensity in the surroundings of the vehicle is detected nondirectionally and which has at least one directional sensor (24), by which the light intensity is detected directionally, at least approximately in the travel direction (14) of the vehicle, and having an evaluation device (30), by which the signals (S1, S2) of the sensors (22, 24) of the sensor device (20) are compared with threshold values (SE), and if at least one of the threshold values (SE) is undershot the lighting devices (10, 12) are switched on, characterized in that at least indirectly, the current temperature of the sensor device (20) is detected and a signal (ST) pertaining to it is delivered to the evaluation device (30); that in the evaluation device (30), temperature-dependent basic signals (S10, S20) of the sensors (22, 24) of the sensor device (20) are stored in memory without light incidence; and that by means of the evaluation device (30), a correction of the current signals (S1, S2) of the sensors (22, 24) of the sensor device (20) and/or of the threshold values (SE) is effected in accordance with the basic signals (S10, S20).

Kuhle 1.26

2. The device of claim 1, characterized in that by means of the evaluation device (30), the rate of change (dS/dt) of the signals (S1, S2) of the sensor device (20) are ascertained, and that the threshold values (SE) are varied as a function of the rate of change (dS/dt) of the signals (S1, S2), in such a way that at a high rate of change (dS/dt), the threshold values (SE)

are higher than at a low rate of change (dS/dt).

10

3. The device of claim 1, characterized in that by means of the evaluation device (30), the threshold values (SE) are varied as a function of the absolute values of the signals (S1, S2) of the sensor device (20), in such a way that for a signal (S1, S2) that is decreasing from a high absolute value, the threshold values (SE) are higher than for a signal (S1, S2) that is decreasing from a low absolute value.

A1 cont'd.

11

4. The device of claim 1, characterized in that the evaluation device (30) is supplied with a signal (SG) for the current speed of the vehicle, and that the processing of the signals (S1, S2) of the sensors (22, 24) of the sensor device (20) by the evaluation device (30) is effected in clocked fashion as a function of the speed of the vehicle, in such a manner that the processing at high speed is done at a higher clock frequency than at low speed.

12

5. The device of claim 4, characterized in that the clock frequency is varied as a function of the speed in such a way that the distance that the vehicle covers between successive processing cycles is at least approximately constant.

13

6. The device of claim 1, characterized in that a further sensor device (34) for detecting precipitation is provided, by which a signal (SR) is generated at least indirectly and delivered to the evaluation device (30), and that by the evaluation device (30), a variation in the threshold values (SE) is effected in such a manner that the threshold values (SE) are higher in the presence of precipitation than in the absence of precipitation.

A1 cont'd.

14 ~~7.~~ The device of claim 6, characterized in that the signal (SR) generated at least indirectly by the further sensor device (34) is dependent on the intensity of the precipitation, and that by means of the evaluation device (30), a variation in the threshold values (SE) is effected in such a manner that the threshold values (SE) are higher at high intensity of the precipitation than at low intensity of the precipitation.